REMARKS

Claims 1-8 and 10 are pending in the present application. Claims 1-5 are withdrawn from consideration. Claims 6 is herein amended. No new matter has been presented.

Rejections under 35 USC §112, First Paragraph

Claims 6-8 and 10, were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The Examiner alleged as follows:

> A. The mesh number of 45 to 75, is not frilly supported by the originally filed disclosure. There is no evidence that the range of 180 to 225 corresponds to the end points of 1/4 and 1/3, respectively.
> B. In light of the above response in paragraph 4, it is the Examiner's position that the claims are sufficiently definite in reciting "a mesh size of 1/4 to 1/3 of the mesh number specified for ordinary screen printing of said ink."

(Office Action, page 3, item 7).

Claim 6 has been amended to delete "of 45 to 75". Thus, this rejection should be withdrawn.

Rejections under 35 USC §103(a)

Claims 6-8 and 10 remain rejected under 35 U.S.C. 103(a) as being obvious over Saint Victor (U.S. Patent No. 6,211,308 B1) in view of Tugwell (U.S. Patent No. 4,037,008 A).

Claim 6 has been amended to recite "(a) a first step in which a screen is set on top of a cloth layer of an assemblage of reinforcing fibers constructed of vertically and horizontally

woven vertical strips and horizontal strips such that the vertical strips and horizontal strips readily come undone when the cloth layer is pulled diagonally;" and "(c) a third step in which the cloth layer impregnated with the ink is dried, forming a cloth core, the vertical strips and horizontal strips together being bonded in such a way that, when the cloth core is pulled in a diagonal direction, the vertical and horizontal strips remain in a bonded state while the vertical and horizontal strips become inclined to each other forming a rhombic shape, thereby preventing the cloth layer from unraveling."

The Examiner stated that these references are applied again for the same reasons as set forth in the prior office actions and that the amendments to claim 6 merely incorporates and re-phrases the subject matter previously pending claim 9, which was also rejected. The Examiner further alleged as follows:

> The prior art rejection is maintained. It remains the Examiner's position that mesh size is a result-effective variable that one of ordinary skill in the art would have optimized by routine experimentation to give any desired result. Applicant has provided no evidence of unexpected results demonstrating the criticality of the claimed mesh size range. In fact, Applicant's disclosure merely discloses the determination of optimum working mesh sizes and ascribes nothing unexpected to the range, reinforcing the Examiner's position that the mesh size is result-effective.

(Office Action, item 5). However, the present invention has solved particular problems of a reinforcing fiber sheet rather than discovered unexpected results.

To achieve weight reductions and increased strength in the automotive body, carbon cloth is often embedded in a matrix resin as a reinforcing material for automotive parts such as bumpers and hoods. However, because the carbon fibers making up this carbon cloth are ultrafine fibers, when immersed in the matrix resin within a mold, the carbon cloth may locally

come undone and the vertical and horizontal strips may meander or twist, which sometimes compromises the appearance of the automotive part after it has been molded.

Acrylic/carbon sheets composed of such a carbon cloth on the market is with an acrylic resin hardened at ordinary room temperature but deformable at a temperature of 130 to 200°C. However, because the acrylic/carbon sheet must be heated so that it is deformed to fit into a mold, and setting such a carbon sheet within a mold is very laborious and time-consuming, which increase the cost and time involved in the production of automotive parts.

The present invention enables the clean and simple production of molded articles with a reinforcing fiber cloth embedded therein without increasing the production cost or time. The invention also makes it possible to obtain dress-up sheets which include a real reinforcing fiber cloth and can be deformed with relative freedom without heating, and thus enable dress-up with a genuine weave pattern to be simply and inexpensively achieved.

The present invention is not obvious from Saint Victor and Tugwell. Saint Victor describes about the coating of textile as follows:

> The use of textiles as a substrate for printing and coating presents additional problems. For the past two decades considerable efforts have been made to develop energy polymerizable screen printing inks for fabrics. One desired property of an ink or coating applied to textiles is that the ink or coating adheres firmly to the textile. For example, a poorly adherent ink will not have the requisite color fastness or abrasion resistance and may degrade under normal wearing and washing conditions. A high degree of crosslinking enhances abrasion resistance and color fastness, and facilitates the grafting of the ink onto the fabric. However, **another desired property is that the ink or coating be flexible. With a stiff ink or coating the textile loses the tactile properties, or "feel," of the original fabric.** Low crosslinking produces soft, flexible films. Consequently, what is desired is a method for printing or coating a textile with a waterless, zero VOC composition wherein the treated textile retains its original feel while exhibiting good color fastness and durability of the ink or coating.

(Saint Victor, column 1, line 64 to column 2, line 15). Thus, Saint Victor's printing and coating is for flexible coating which does not make the textile lose the "feel" of the original fabric.

Therefore, there is no reason for a person having ordinary skill in the art to modify Saint Victor to an ink is supplied onto the screen and screen printing is carried out, thereby impregnating the cloth layer with the ink "wherein said screen has a mesh size of mesh number which corresponds to 1/4 to 1/3 of mesh number specified for ordinary screen printing of said ink."

The Examiner alleged that Tugwell teaches that the mesh size is a result-effective variable and may be adjusted depending upon the viscosity of the ink utilized as well as the thickness and degree of detail desired. Tugwell describes as follows:

> The silk-screen material is available in several meshes to accommodate various needs. The finer the screen mesh, the finer the detail which can be achieved. Fine mesh screens require thinner ink viscosity and consequently deposit thinner layers of ink. Coarse mesh screens will allow heavy deposits of more viscous inks, but do not allow fine detail.

(Tugwell, column 2, lines 20-26). Thus, Tugwell simply explains general tendency that the more viscous the ink becomes the coarser the required mesh becomes. Here, Tugwell is discussing the ordinary standard screen printing, and nothing indicates that the screen has a mesh size coarser than a standard mesh size specified for ordinary screen printing of the ink.

Thus, Saint Victor and Tugwell does not teach or suggest "(b) a second step in which an ink that exhibits required flexibility after drying is supplied onto the screen and screen printing is carried out, thereby impregnating the cloth layer with the ink" and "wherein said screen has a

mesh size of mesh number which corresponds to 1/4 to 1/3 of mesh number specified for ordinary screen printing of said ink," as recited in claim 6."

Moreover, (a) and (c) in claim 6 have been amended as shown above. Claim 6 further distinguish over the references in that it provides a method of obtaining a cloth core by screen printing whereby a cloth layer or a carbon cloth, which originally tends to come undone easily, is impregnated with a large amount of ink so that the vertical and horizontal strips forming the cloth layer or the carbon cloth may have a characteristic flexibility to be deformed into a rhombic shape when the cloth is pulled in a diagonal direction.

As discussed above, although Saint Victor discloses a method for coating a textile with a polymer-forming composition, it does not teach or suggest that the sheet material before being coated come easily undone. Thus, the above features (a) and (c) in claim 6 are not disclosed in Saint Victor.

In addition, the cloth core disclosed in the present invention has the advantage, as an intermediate/core material for a reinforcing fiber sheet that it can be handled is more easily than conventional acrylic/carbon sheets because the vertical and horizontal strips have the flexibility to be deformed to form a rhombic shape.

Also, as discussed above, Tugwell simply explains general tendency that the more viscous the ink becomes the coarser the required mesh becomes. Therefore, Tugwell does not teach or suggest the aforementioned features as recited in (a) and (c) in claim 6.

For at least these reasons, claim 6 patentably distinguishes over Saint Victor and Tugwell. Claims 7, 8 and 10, depending from claim 6, also patentably distinguish over the cited references for at least the same reasons.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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